

**Figure 1: Printing and Plating. Typical schematic procedure for making stamp from photoresist master r pattern, inking with thiol, stamping thiol on gold to form SAM protective pattern, etching away unprotected gold, electroless plating of copper lines on top of remaining gold.**

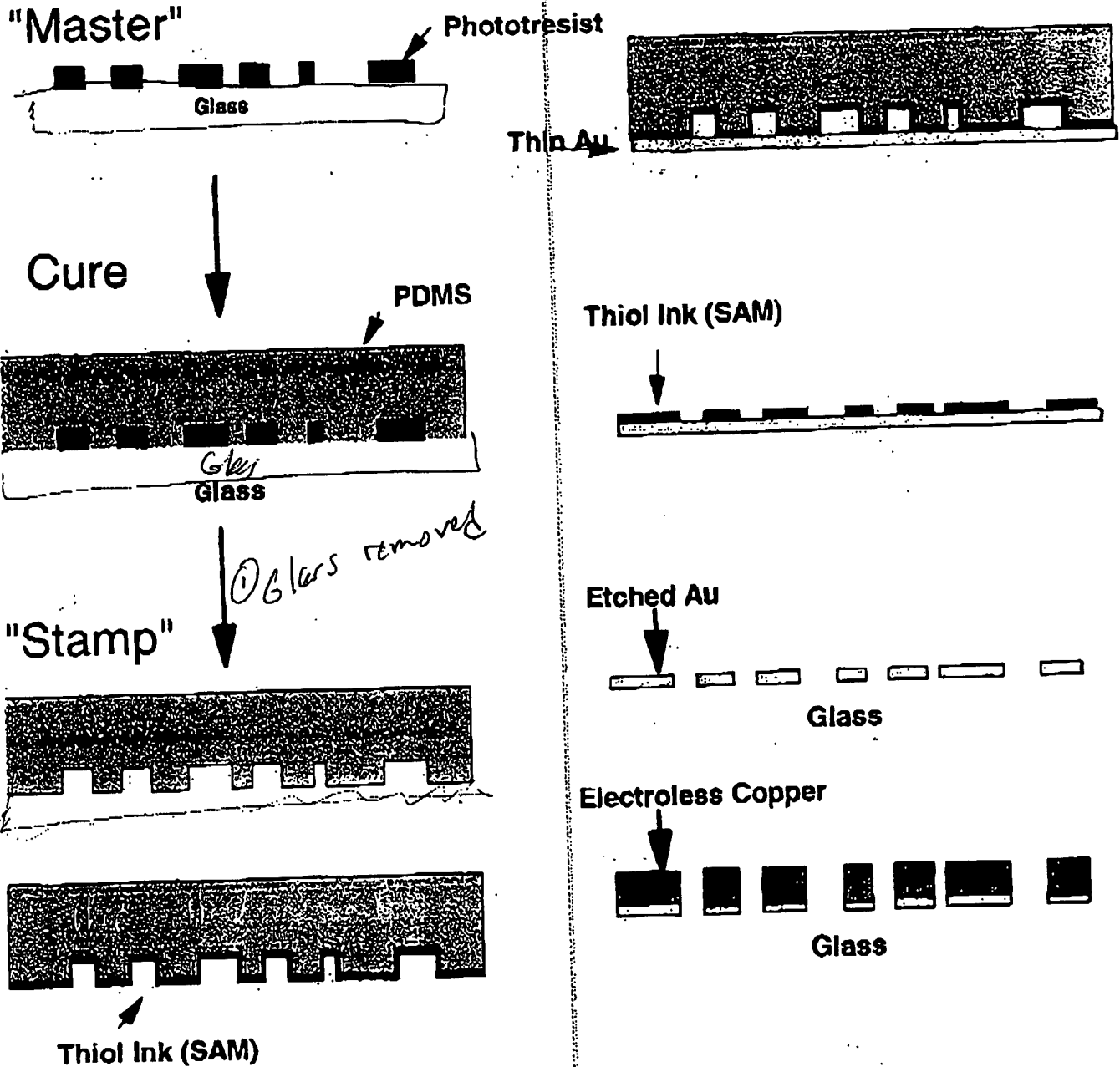
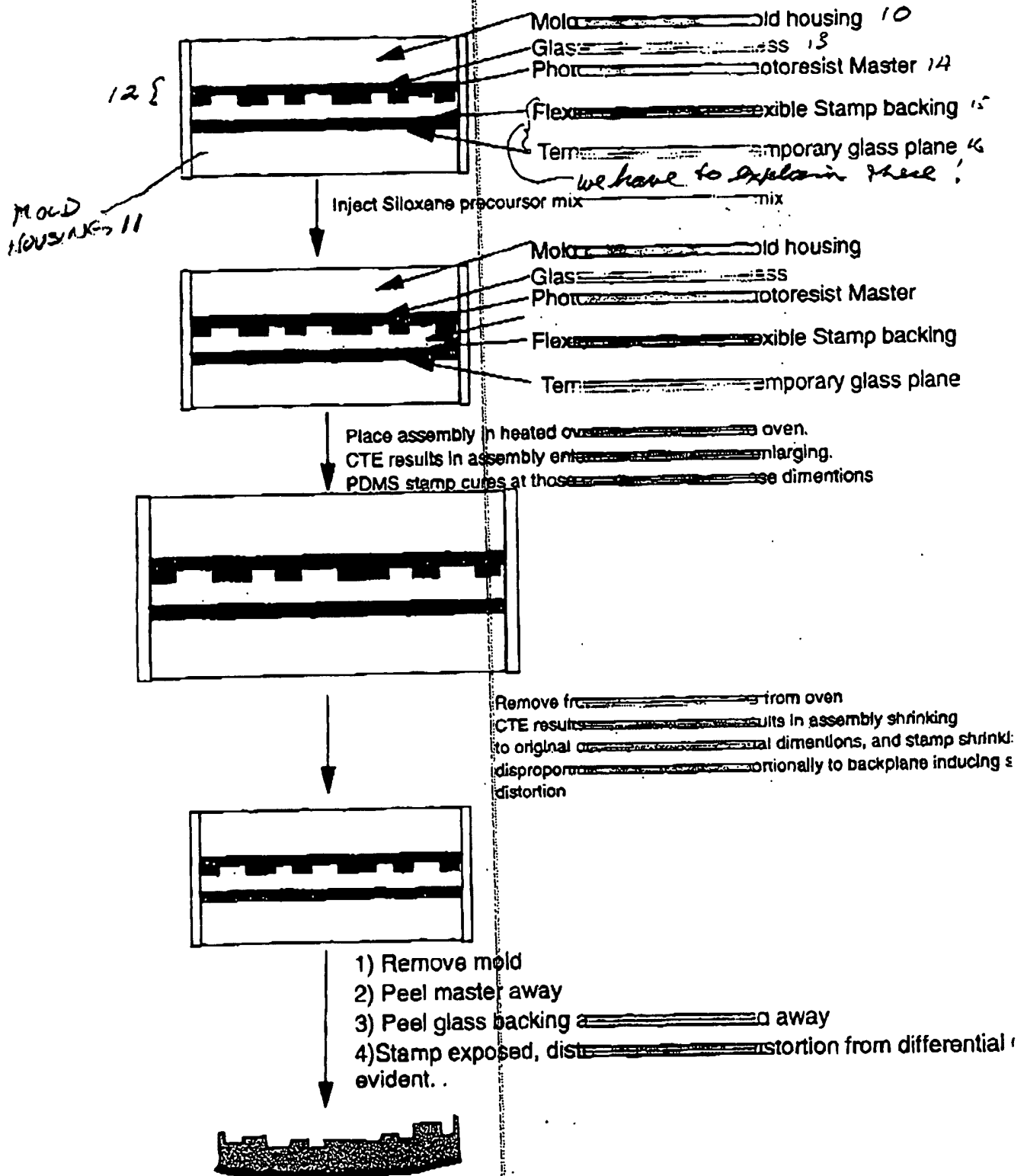
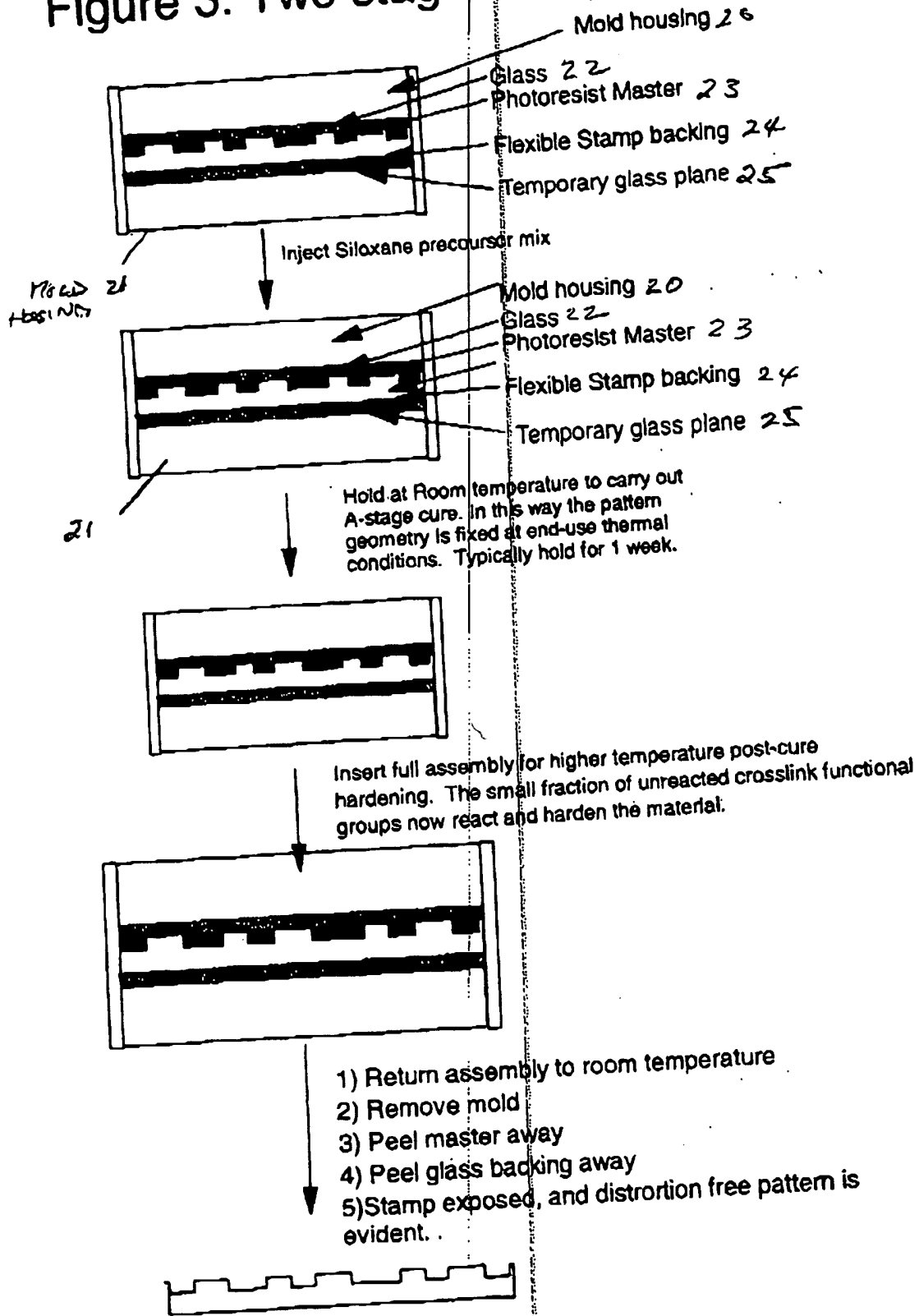


Figure 2: Standard one-step curing me



Finished Stamp - Severe distortion

# Figure 3: Two stage curing of siloxane stamp.



Finished Stamp - Little distortion evident

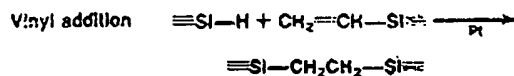
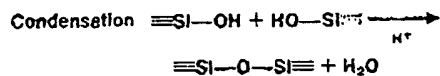
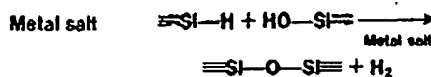
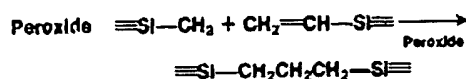
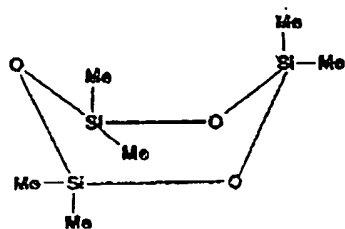
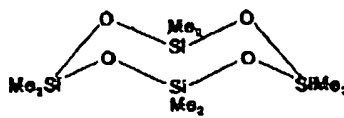


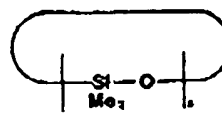
Figure 4 Silicone curing systems



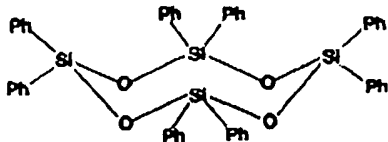
Hexamethylcyclotrisiloxane



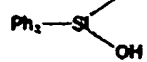
Octamethylcyclotetrasiloxane



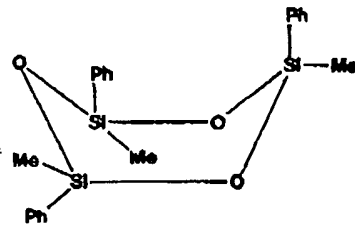
Decamethylcyclopentasiloxane



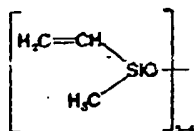
Octaphenylcyclotetrasiloxane



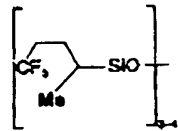
Diphenylsilanediol



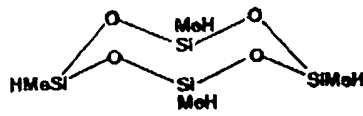
Trimethyltriphenylcyclotrisiloxane



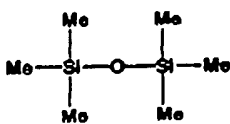
Vinylmethylcyclosiloxanes



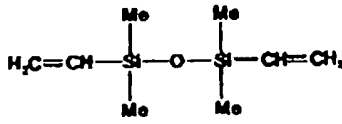
Trifluoropropylmethylcyclosiloxanes



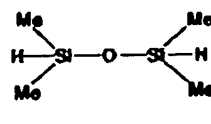
Methylhydrocyclosiloxanes



Hexamethyldisiloxane



Divinyltetramethyldisiloxane



Tetramethyldisiloxane

Figure 5 Silicone monomers and terminators